SUPREME

TOOTHBRUSH HOLDER

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FIELD OF THE INVENTION

[0001] The present invention relates to a toothbrush holder. More particularly, the present invention relates to a toothbrush holder having at least one removal holding member capable of frictionally engaging toothbrushes of varying shapes and sizes in a hygienic manner.

BACKGROUND OF THE INVENTION

[0002] Toothbrush holders function to store toothbrushes when not in use in an orderly manner. A recurring concern with toothbrush holders is their ability to maintain the toothbrush in a hygienic manner. Storing toothbrushes vertically has been thought to enable positioning of a bristle-end of the toothbrush away from contact with potentially unclean surfaces.

[0003] Toothbrush holders in the past have conventionally been designed to accommodate a single shape of a toothbrush wherein the toothbrush has a slender handle. See for examples U.S. Patent 4,978,003, U.S. Patent 5,769,245 and 5,687,855. Other toothbrush holders have been specifically designed for vertically storing a toothbrush having an enlarged handle in a hygienic manner. See U.S. Patent Application Pub. No. US2001/0003332 A1.

[0004] Consequently, there exists a need for a toothbrush holder for holding toothbrushes of different sizes and shapes in a single unit in a secure and substantially upright and hygienic manner. There also exists a need for a toothbrush holder which is easily sanitized and maintained in a cost-effective manner.

SUMMARY OF THE INVENTION

[0005] A toothbrush holder is disclosed embodying principles to solve the aforementioned problem. Accordingly, the toothbrush holder is provided for holding the toothbrush handle in a relatively secure, hygienic and precise manner wherein the toothbrush cannot be easily dislodged from the holder by accidental contact with the toothbrush handle. The present toothbrush holder is adapted to conveniently, securely and precisely hold various brands, sizes and types of conventional toothbrushes simultaneously in a single holder. The present invention further embodies principles of a relatively inexpensive, replaceable or removal, frictional holding means for

engaging various sizes, shapes and types of toothbrushes. The toothbrush holder of the invention is adaptable to provide a substantially aesthetically pleasing appearance and also provides substantial ease, reliability and convenience of maintaining the holder in a hygienic manner during extended use.

[0006] Accordingly, it is an advantage of the present invention to provide a toothbrush holder adaptable for frictionally engaging toothbrushes of different brands, sizes and shapes in a single holder unit.

[0007] It is another advantage of the present invention to provide a toothbrush holder which promotes good hygiene in a substantially easy, reliable, convenient and cost-effective manner.

[0008] It is another advantage of the present invention to provide a toothbrush holder which promotes good hygiene by providing a removal and/or replaceable means of holding or engaging a toothbrush to be stored in the holder.

[0009] It is yet another advantage of the present invention to provide a toothbrush holder having a removal holding component for frictionally engaging a desired toothbrush.

[00010] Still another advantage of the present invention is to provide a toothbrush holder which is suitable to frictionally engages a desired toothbrush in a holding component which has been treated with an antibacterial agent.

[00011] These and other advantages and features of the invention will be apparent from the following description, drawings and appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[00012] FIG. 1 is a perspective view of a toothbrush holder illustrating the principles of the present invention.

[00013] FIG. 2 is a front view of a toothbrush holder body and removable holding components illustrating principles of the present invention.

[00014] FIG. 3 is a front view of a wall mountable toothbrush holder illustrating the principles of the present invention.

[00015] FIG. 4 is a cross-sectional view of the toothbrush holder of FIG. 3.

[00016] Fig. 5 is a side view of a free standing toothbrush holder in accordance with the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[00017] As illustrated in FIG. 1, a toothbrush holder **1** embodying principles of the present invention is shown. The toothbrush holder **1** includes a body member **2** having a rigid construction and geometric shape. The body member **2** has a front end **3** and a back end **4**. The front end **3** of the body member **2** has at least one recessed surface **5** which surface is formed by providing at least two outwardly extending portions **6**, **6'** having an inwardly extending portion **7** between the portions. Outwardly extending portions **6**, **6'** and inwardly extending portion **7** acts together to provide one or a series of recessed surfaces **5** along the front end **3** of the body member **2**. A deformable holding component **8** extends outwardly into each recessed surface **5** from the inwardly extending portion **7** of the body member **2**. Holding component **8** has a center slot **9** which extends vertically from the inwardly extending portion **7** of the body member in a direction toward the front end **3** of the body member **2**. Center slot **9** acts to form opposing gripping surfaces substantially in the center of the holding component **8**. In use, the opposing gripping surfaces functions to frictionally engage a toothbrush between holding component **8** and the inwardly extending portion **7** of the body member **2**.

[00018] A toothbrush may be secured in the toothbrush holder by substantially engaging a toothbrush within the toothbrush holder **1**. Generally, the toothbrush will comprise a handle region having a predetermined surface contour shoulder. The toothbrush is secured in toothbrush holder **1** by substantially engaging the shoulder or other region of the handle within vertically extending center slot **9** by sliding the handle or other region into center slot **9** using a forward motion of the handle. Frictional forces between portions of the handle surface and opposing grip surfaces formed by center slot **9** secures the toothbrush in the holder **1** until removed by a user applying an opposite force to the handle. The friction is largely developed by wedging the shoulder or other region of the handle between each of the opposing gripping surfaces formed by slot center **9** and the inwardly extending portion 7 of the body member **2**.

[00019] The toothbrush maybe any brand, size, shape or type which includes bristles and a handle. The handle normally has a relatively uniform thickness and

includes a front surface, a rear surface, and side surfaces. The handle also generally includes a head portion, a body portion, a neck portion disposed between the head portion and the body portion, and a shoulder region or shank having sloped shoulder surfaces on the sides of the handle where the neck portion adjoins the body portion. The bristles are mounted on the head portion of the handle and the toothbrush is gripped in the user's hand by the body portion of the handle.

[00020] The body member 2 may be made of a variety of materials having sufficient rigidity to maintain the structural integrity of body member **2** under the intended use. Suitable materials include, but are not limited to, wood, metal, ceramic or plastic. Preferably, body member **2** is made from a plastic material, e.g. polyethylene, polyurethane and epoxy resins. Body member **2** may be constructed using conventional techniques such as molding, extruding, shaping, etc. to form a rigid geometric shape. As will be understood by one skilled in the art, body member **2** may be shaped in any desired geometric shape provided such shape does not interfere with the principles of the invention as recited herein.

[00021] As shown in FIG. 2, holding component **8** is removable and replaceable to provide increased cost-savings and sanitary control. Once soiled, holding component **8** can easily be discarded and replaced. Holding component **8** is easily adaptable to hold toothbrushes of various brands, sizes, shapes and types by varying the size and shape of center slot **9**. Holding component **8** may be formed by conventional means, i.e., molding, cutting, shaping, etc., using a deformable, flexible material such as rubber, foam or an elastomeric plastic material. Preferably, holding component **8** is formed from a rubber material. In one embodiment of the invention, the deformable material is treated with an antibacterial agent prior to or after forming holding component **8**.

[00022] In FIG.2, holding component **8** comprises an front end **10** and a back end **10'** and opposing side wall **13** and **13'** and a center slot **9** formed substantially in the center of the holding component in a vertical relationship with sidewalls **13** and **13'** to provide an opening at the front of the component. Holding component **8** is inserted in body member **2** through a series of adjacent internal slots **11** located within the interior of body member **2**. Each internal slot **11** is shaped independently to be open and extend from the back end **4** of body member **2** to the front end **3** of body

member **2** into a single recessed space **5**. As shown in FIG 4., each internal slot **11** may be separated from the adjacent slot by an internal wall **12** extending the height of body member **2** and at least a portion of the vertical width of the body member. This allows for independent insertion, retention, removal and/or replacement of a holding component **8** as desired.

[00023] The toothbrush holder may be used by affixing the body member **2** to a horizontal surface such as, for example a wall or a cabinet, using a suitable attaching means. In one embodiment of the invention as illustrated in FIG. 3., body member **2** may be attached to the horizontal surface by inserting screws in a series of holes **14** located along the lower front portion of the body member. Alternatively, the toothbrush holder may be fashioned as shown in FIG 5 to contain a base **15** and form a free-standing unit.

[00024] Although the foregoing detailed description discloses preferred aspects embodying principles of the present invention, one of ordinary skill in the art would understand that such detail aspects of the present invention are subject to numerous modifications and alterations. For example, holder **1** can be formed or constructed out of a single piece of material or multiple pieces of materials. The holder **1** and/or body member **2** can be provided in many different geometric shapes. The recessed surface/s **5** can be shaped or otherwise adapted to secure virtually any size or shaped toothbrush using virtually any localized surface region of the toothbrush. Preferably, however, recessed surfaces **5** have a width in excess of the width or circumference of the region of the toothbrush to be secured within the holder **1**. Holding component **8** may have various length sand shapes depending upon such factors as the number of opposing gripping surfaces desired, the size and shape of the toothbrush region to be secured, the geometric configuration of the recessed surfaces **5**, and/or the geometric configuration of the body member **2**, etc. Holding component **8** may be placed and secured within the body member in any manner which permits the component to be removable and useful to frictionally engage a desired portion of a toothbrush securely within the holder **1**. The toothbrush holder **1** and/or the holding component **8** may be used generally to store and frictionally engage any dental cleaning device or equipment having a handle in a hygienic manner.

[00025] Accordingly, the present invention is not limited to specific embodiments as described in detail hereinabove.